

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 **Claim 1 (previously presented):** A location
2 information transmission method for reporting on-road
3 location on a digital map,
4 characterized in that an information provider
5 transmits on-road location information by using road
6 shape data including said on-road location comprising a
7 string of coordinates representing the road shape of a
8 road section and relative data indicating said on-road
9 location in said road section; and
10 that a party receiving said on-road location
11 information performs shape matching using said road shape
12 data to identify said road section on the digital map and
13 uses said relative data to identify the on-road location
14 in said road section.

1 **Claim 2 (previously presented):** A location
2 information transmission according to claim 1,
3 characterized in that said method uses a string of
4 coordinates arranging latitude/longitude data of the road
5 point per predetermined distance interval as a string of
6 coordinates representing said road shape.

1 **Claim 3 (original):** A location information
2 transmission method according to claim 1, characterized
3 in that said method uses distance data from a specific
4 point in the road section as said relative data.

Claims 4-9 (canceled)

1 **Claim 10 (previously presented):** A location
2 information transmission method for reporting on-road
3 location on a digital map,
4 characterized in that an information provider
5 transmits on-road location information by using road
6 shape data including said on-road location comprising a
7 string of coordinates representing the road shape of a
8 road section; and
9 that a party receiving said on-road location
10 information performs shape matching using said road shape
11 data to identify said road section on the digital map.

1 **Claim 11 (previously presented):** The location
2 information transmission method according to Claim 10,
3 characterized in that said method uses a string of
4 coordinates arranging latitude/longitude data of the road
5 point per predetermined distance interval as a string of
6 coordinates representing said road shape.

Claims 12-17 (canceled)

1 **Claim 18 (previously presented):** An information
2 provision apparatus for providing on-road location
3 information on a digital map by using a location
4 information transmission method according to Claim 10,
5 said information provision apparatus comprising:
6 a location information converter for converting
7 transmission on-road location information to a road shape
8 data including said on-road location consisting of a
9 string of coordinates representing the road shape of a
10 road section.

1 **Claim 19 (previously presented):** A location
2 information transmission method for reporting location
3 information on a digital map, characterized in that:
4 an information provider transmits location
5 information using a shape data including a coordinate
6 string; and
7 a party of receiving side identify said location
8 using said shape data.

1 **Claim 20 (previously presented):** The location
2 information transmission method according to claim 19,
3 wherein said coordinate string represents a
4 geometrically pattern on a digital map.

1 **Claim 21 (previously presented):** The location
2 information transmission method according to claim 19,
3 wherein said shape data includes a coordinate string
4 indicating a region including a position on which an
5 event occurs.

1 **Claim 22 (previously presented):** The location
2 information transmission method according to claim 19,
3 wherein said shape data includes a coordinate string
4 indicating a border of a region in which an event occurs.

1 **Claim 23 (previously presented):** The location
2 information transmission method according to claim 19,
3 wherein said shape data includes a coordinate string
4 indicating points at predetermined intervals.

1 **Claim 24 (previously presented):** The location
2 information transmission method according to claim 19,
3 wherein content of said shape data is changeable in
4 accordance with a situation of a region indicated by said
5 shape data.

1 **Claim 25 (previously presented):** The location
2 information transmission method according to claim 19,
3 wherein said party of receiving side implements
4 shape matching using said shape data in order to identify
5 the location.

Claims 26-36 (canceled)

1 **Claim 37 (previously presented):** An information
2 provision apparatus for providing location information on
3 a digital map, by using the method according to any one
4 of claims 19 to 25, said apparatus comprising:
5 a location information converter for converting a
6 location information to be transmitted to said shape
7 data; and
8 a transmission section for transmitting said shape
9 data.

1 **Claim 38 (previously presented):** An information
2 transmission method for transmitting location information
3 to a device having a digital map, characterized in that:
4 said location information includes a shape data
5 having a coordinate string.

1 **Claim 39 (previously presented):** The information
2 transmission method according to claim 38,
3 wherein coordinates included in said coordinate
4 string are absolute coordinates.

1 **Claim 40 (previously presented):** The information
2 transmission method according to claim 38,
3 wherein a part of coordinates included in said
4 coordinate string is relative coordinate.

1 **Claim 41 (previously presented):** The information
2 transmission method according to any one of claims 38 to
3 40,
4 wherein said coordinate string is a coordinate
5 chain.

1 **Claim 42 (previously presented):** A coding method
2 for coding an object when information regarding said
3 object on a traffic route network is transmitted between
4 an information provider and a party of receiving side,
5 characterized in that:
6 said object includes at least a coordinate string;
7 said coordinate string includes a coordinate on a
8 road, wherein at least a part of said road is included in
9 a digital map data of said party of receiving side, and

10 coordinates indicating a shape whose location is capable
11 of being identified at said party of receiving side.

1 **Claim 43 (previously presented):** The location
2 information transmission method according to claim 21 or
3 22,
4 wherein said information provider transmits
5 information indicating a type and level of said event,
6 adding to said shape data.

Claim 44 (canceled)